



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu

Application No.: 09/940,063 Group: 1644

Filed: August 27, 2001 Examiner: Jessica H. Roark, Ph.D.

Confirmation No.: 3846

For: NOVEL ANTIBODIES AND LIGANDS FOR "BONZO"  
CHEMOKINE RECEPTOR

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:

3-19-04 Carol M. Bowerman  
Date Signature

Carol M. Bowerman  
Typed or printed name of person signing certificate

DECLARATION UNDER 37 C.F.R. § 1.131

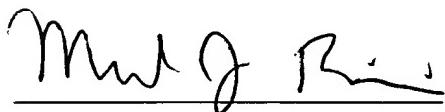
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

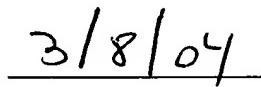
We, Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu, hereby declare and state:

1. We are coinventors of the invention claimed in the above-referenced patent application.
2. We produced in the United States, and were in possession of, several monoclonal antibodies that have binding specificity for Bonzo, including mAb 4A11, mAb 7A2, mAb 7F3 and mAb 9G2, before March 24, 1999. The monoclonal antibodies were produced and their binding specificity was assessed as described at page 61, line 4 through page 63, line 23 of the subject application.
3. Evidence is provided in the attached Exhibit, which consists of copies of pages 169 and 170 of a notebook maintained by inventor Kristine Murphy. In accordance with accepted practice, the dates on the copies of the notebook pages are masked. (M.P.E.P. § 715.07). However, pages 169 and 170 in the original notebook each bear a date of recordation that is prior to March 24, 1999.
4. The attached notebook pages describe a study that demonstrated that particular monoclonal antibodies have binding specificity for a mammalian Bonzo. The study involved staining transfected L1.2 cells that expressed hemagglutinin (HA)-tagged human Bonzo, or HA-tagged human Bob (a different chemokine receptor), with monoclonal antibodies produced by various hybridoma clones. Antibodies that bound to the transfected L1.2 cells were detected by fluorescence flow cytometry using a FITC-labeled goat anti-mouse antibody. As depicted in the fluorescence histograms on page 170, mAb 4A11, mAb 4F7, mAb 7A2, mAb 7F3, mAb 9G2 and mAb 10E3 bound to transfected L1.2 cells expressing HA-Bonzo, but did not bind to transfected L1.2 cell expressing HA-Bob. The hand-written annotations above the histograms on page 170 indicate the particular antibody that was used to stain the transfected L1.2 cells. Staining of transfected L1.2 cells that expressed HA-Bonzo is depicted by the filled peak, and staining of transfected L1.2 cells that expressed HA-Bob is depicted by the open peak.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements, if made, may jeopardize the validity of the application or any patent issuing thereon.



Michael J. Briskin, Ph.D.



Date

---

Kristine E. Murphy

---

Date

---

Alyson M. Wilbanks

---

Date

---

Lijun Wu, Ph.D.

---

Date



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu

Application No.: 09/940,063 Group: 1644

Filed: August 27, 2001 Examiner: Jessica H. Roark, Ph.D.

Confirmation No.: 3846

For: NOVEL ANTIBODIES AND LIGANDS FOR "BONZO"  
CHEMOKINE RECEPTOR

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:

3-19-04 Carol M. Bowerman

Date Signature

Carol M. Bowerman

Typed or printed name of person signing certificate

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We, Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu, hereby declare and state:

1. We are coinventors of the invention claimed in the above-referenced patent application.
2. We produced in the United States, and were in possession of, several monoclonal antibodies that have binding specificity for Bonzo, including mAb 4A11, mAb 7A2, mAb 7F3 and mAb 9G2, before March 24, 1999. The monoclonal antibodies were produced and their binding specificity was assessed as described at page 61, line 4 through page 63, line 23 of the subject application.
3. Evidence is provided in the attached Exhibit, which consists of copies of pages 169 and 170 of a notebook maintained by inventor Kristine Murphy. In accordance with accepted practice, the dates on the copies of the notebook pages are masked. (M.P.E.P. § 715.07). However, pages 169 and 170 in the original notebook each bear a date of recordation that is prior to March 24, 1999.
4. The attached notebook pages describe a study that demonstrated that particular monoclonal antibodies have binding specificity for a mammalian Bonzo. The study involved staining transfected L1.2 cells that expressed hemagglutinin (HA)-tagged human Bonzo, or HA-tagged human Bob (a different chemokine receptor), with monoclonal antibodies produced by various hybridoma clones. Antibodies that bound to the transfected L1.2 cells were detected by fluorescence flow cytometry using a FITC-labeled goat anti-mouse antibody. As depicted in the fluorescence histograms on page 170, mAb 4A11, mAb 4F7, mAb 7A2, mAb 7F3, mAb 9G2 and mAb 10E3 bound to transfected L1.2 cells expressing HA-Bonzo; but did not bind to transfected L1.2 cell expressing HA-Bob. The hand-written annotations above the histograms on page 170 indicate the particular antibody that was used to stain the transfected L1.2 cells. Staining of transfected L1.2 cells that expressed HA-Bonzo is depicted by the filled peak, and staining of transfected L1.2 cells that expressed HA-Bob is depicted by the open peak.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements, if made, may jeopardize the validity of the application or any patent issuing thereon.

---

Michael J. Briskin, Ph.D.

Date

---

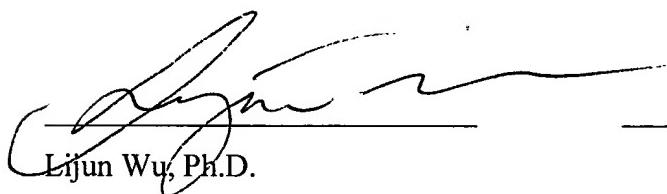
Kristine E. Murphy

Date

---

Alyson M. Wilbanks

Date

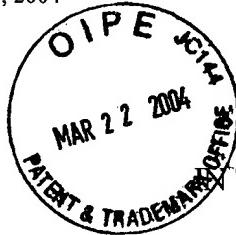
A handwritten signature in black ink, appearing to read "Lijun Wu".

Lijun Wu, Ph.D.

---

3/11/04

Date



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu

Application No.: 09/940,063 Group: 1644

Filed: August 27, 2001 Examiner: Jessica H. Roark, Ph.D.

Confirmation No.: 3846

For: NOVEL ANTIBODIES AND LIGANDS FOR "BONZO"  
CHEMOKINE RECEPTOR

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:

3-19-04 Carol M. Bowerman

Date Signature

Carol M. Bowerman

Typed or printed name of person signing certificate

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We, Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu, hereby declare and state:

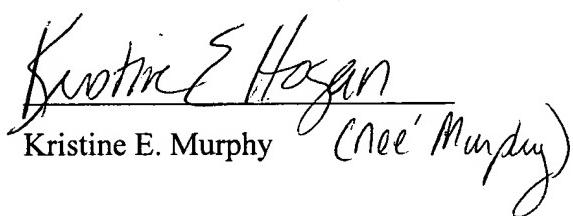
1. We are coinventors of the invention claimed in the above-referenced patent application.
2. We produced in the United States, and were in possession of, several monoclonal antibodies that have binding specificity for Bonzo, including mAb 4A11, mAb 7A2, mAb 7F3 and mAb 9G2, before March 24, 1999. The monoclonal antibodies were produced and their binding specificity was assessed as described at page 61, line 4 through page 63, line 23 of the subject application.
3. Evidence is provided in the attached Exhibit, which consists of copies of pages 169 and 170 of a notebook maintained by inventor Kristine Murphy. In accordance with accepted practice, the dates on the copies of the notebook pages are masked. (M.P.E.P. § 715.07). However, pages 169 and 170 in the original notebook each bear a date of recordation that is prior to March 24, 1999.
4. The attached notebook pages describe a study that demonstrated that particular monoclonal antibodies have binding specificity for a mammalian Bonzo. The study involved staining transfected L1.2 cells that expressed hemagglutinin (HA)-tagged human Bonzo, or HA-tagged human Bob (a different chemokine receptor), with monoclonal antibodies produced by various hybridoma clones. Antibodies that bound to the transfected L1.2 cells were detected by fluorescence flow cytometry using a FITC-labeled goat anti-mouse antibody. As depicted in the fluorescence histograms on page 170, mAb 4A11, mAb 4F7, mAb 7A2, mAb 7F3, mAb 9G2 and mAb 10E3 bound to transfected L1.2 cells expressing HA-Bonzo, but did not bind to transfected L1.2 cell expressing HA-Bob. The hand-written annotations above the histograms on page 170 indicate the particular antibody that was used to stain the transfected L1.2 cells. Staining of transfected L1.2 cells that expressed HA-Bonzo is depicted by the filled peak, and staining of transfected L1.2 cells that expressed HA-Bob is depicted by the open peak.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements, if made, may jeopardize the validity of the application or any patent issuing thereon.

---

Michael J. Briskin, Ph.D.

Date

  
Kristine E. Murphy (née Murphy)

---

3/12/04

Date

---

Alyson M. Wilbanks

Date

---

Lijun Wu, Ph.D.

Date



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu

Application No.: 09/940,063 Group: 1644

Filed: August 27, 2001 Examiner: Jessica H. Roark, Ph.D.

Confirmation No.: 3846

For: NOVEL ANTIBODIES AND LIGANDS FOR "BONZO"  
CHEMOKINE RECEPTOR

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:

3-19-04 Carol M. Bowerman

Date Signature

Carol M. Bowerman

Typed or printed name of person signing certificate

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We, Michael J. Briskin, Kristine E. Murphy, Alyson M. Wilbanks and Lijun Wu, hereby declare and state:

1. We are coinventors of the invention claimed in the above-referenced patent application.
2. We produced in the United States, and were in possession of, several monoclonal antibodies that have binding specificity for Bonzo, including mAb 4A11, mAb 7A2, mAb 7F3 and mAb 9G2, before March 24, 1999. The monoclonal antibodies were produced and their binding specificity was assessed as described at page 61, line 4 through page 63, line 23 of the subject application.
3. Evidence is provided in the attached Exhibit, which consists of copies of pages 169 and 170 of a notebook maintained by inventor Kristine Murphy. In accordance with accepted practice, the dates on the copies of the notebook pages are masked. (M.P.E.P. § 715.07). However, pages 169 and 170 in the original notebook each bear a date of recordation that is prior to March 24, 1999.
4. The attached notebook pages describe a study that demonstrated that particular monoclonal antibodies have binding specificity for a mammalian Bonzo. The study involved staining transfected L1.2 cells that expressed hemagglutinin (HA)-tagged human Bonzo, or HA-tagged human Bob (a different chemokine receptor), with monoclonal antibodies produced by various hybridoma clones. Antibodies that bound to the transfected L1.2 cells were detected by fluorescence flow cytometry using a FITC-labeled goat anti-mouse antibody. As depicted in the fluorescence histograms on page 170, mAb 4A11, mAb 4F7, mAb 7A2, mAb 7F3, mAb 9G2 and mAb 10E3 bound to transfected L1.2 cells expressing HA-Bonzo, but did not bind to transfected L1.2 cell expressing HA-Bob. The hand-written annotations above the histograms on page 170 indicate the particular antibody that was used to stain the transfected L1.2 cells. Staining of transfected L1.2 cells that expressed HA-Bonzo is depicted by the filled peak, and staining of transfected L1.2 cells that expressed HA-Bob is depicted by the open peak.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements, if made, may jeopardize the validity of the application or any patent issuing thereon.

---

Michael J. Briskin, Ph.D.

---

Date

---

Kristine E. Murphy

---

Date

---

Alyson M. Wilbanks

---

3/12/04

---

Date

---

Lijun Wu, Ph.D.

---

Date

ITLE

Bonzo mAb specificity on HA Bob

From Page No. \_\_\_\_\_

Purpose To determine if Bonzo mAb clones are specific for Bonzo or if they cross to HA. I will therefore test all for staining on HA Bob cells. Good clones will be positive(+) on HA Bonzo (L2 and) Negative (-) on HA Bob cells.

Protocol - follow staining protocol on page # 17

- Test cells on - BA treated Bonzo
- BA treated Bob

### Bonzo Specificity

	1	2	3	4	5	6	7	8	9	10	11	12	13
HA L2 r20	A	1A12	K5	IE6	167	165	2E6	GE8	Y4H11	YC7	YF5	YF7.3	5F10
	-	-	N	-	-	-	Hn	H5	+	-	H7	-	-
HA Bob		P	P	N	-	N	J	L	X	-	-	-	-
HA B12	C	SF9	SFG	6F9	6F11	7H2	7A8	7C7	7D3	8C7	SD5	3F10	
HA Bob	D	H	H	X	X	-	H	H	-	H	-	-	-
HA B12	E	5B2	7B2	9E9	1E5	1E3	1E3	1003	1H7	HA	HA	For	1H4
HA Bob	F	H	H	H	H	H	H	H	H	2	4		
	G												
	H												
	I												
	J												
	K												
	L												
	M												
	N												
	O												
	P												
	Q												
	R												
	S												
	T												
	U												
	V												
	W												
	X												
	Y												
	Z												

### Good clones

4A11  
4F7  
7A2  
7F3  
9G2  
10E3

To Page No. \_\_\_\_\_

Witnessed &amp; Understood by me,

Date

Invented by

Recorded by

Date

Tammy Smith

EXHIBIT

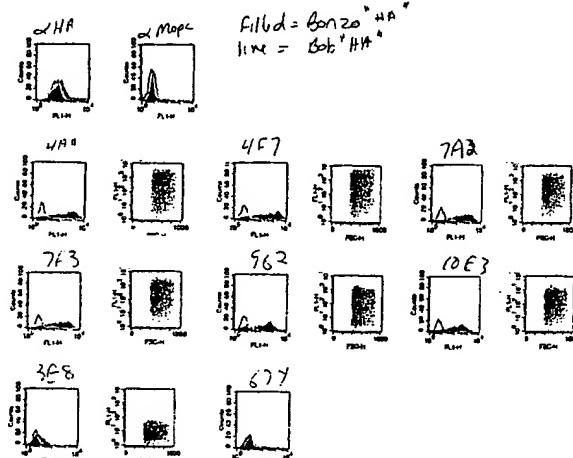
170

Project No. \_\_\_\_\_

Book No. \_\_\_\_\_

TITLE Cont

From Page No. \_\_\_\_\_



Results - 4A1, 4F7, 7A2, 7F3, 9G2 + 10E3

all look good - real good !!!

I will subclone all six clones by  
limiting dilution in HAT medium

- 1 plate 10 / well
- 2 plates 1 / well
- 2 plates 0.5 / well
- 1 plate 0.1 / well

To Page No. \_\_\_\_\_

Witnessed &amp; Understood by me,

Date

Invented by

Date

Tammy Smith

Recorded by

H. J. Murphy